

Indeed, water power is a mainspring of industrial progress in the central provinces, which have no indigenous coal supplies. Table 1 shows the provincial distribution of available and developed power in Canada at Dec. 31, 1938.

1.—Available and Developed Water Power in Canada, by Provinces, Dec. 31, 1938.

Province or Territory.	Available 24-Hour Power at 80 p.c. Efficiency.		Turbine Installation.
	At Ordinary Minimum Flow.	At Ordinary Six-Month Flow.	
	h.p.	h.p.	
Prince Edward Island.....	3,000	5,300	2,617
Nova Scotia.....	20,800	128,300	130,617
New Brunswick.....	68,600	189,100	133,347
Quebec.....	8,459,000	13,064,000	4,031,063
Ontario.....	5,330,000	6,940,000	2,582,959
Manitoba.....	3,309,000	5,344,500	420,925
Saskatchewan.....	542,000	1,082,000	61,035
Alberta.....	390,000	1,049,500	71,997
British Columbia.....	1,931,000	5,193,500	738,013
Yukon and Northwest Territories.....	294,000	731,000	18,199
Canada.....	20,347,400	33,617,300	8,190,772

The figures of available power in the above table are based upon rapids, falls, and power sites of which the actual existent drop, or the head of possible concentration, is definitely known or at least well established. Innumerable rapids and falls of greater or smaller power capacity, not as yet recorded, are scattered on rivers and streams from coast to coast and will only become available for tabulation as more detailed survey work is undertaken and completed. This is particularly true of the less explored northern districts. Nor is any consideration given to the power concentrations which are feasible on rivers and streams of gradual gradient, where economic heads may be created by the construction of power dams, excepting only at points where definite studies have been carried out and the results made matters of record.

The turbine installation in the above table represents the actual water wheels installed throughout the Dominion, but these figures should not be placed in direct comparison with the available power figures for the purpose of deducing therefrom the percentage of the available water-power resources developed to date. The actual water-wheel installation throughout the Dominion averages 30 p.c. greater than corresponding maximum available power figures calculated at ordinary six-month flow. The figures quoted above, therefore, indicate that the "at present recorded water-power resources" of the Dominion will permit of a turbine installation of about 43,700,000 h.p. In other words, the present turbine installation represents only 18½ p.c. of the present recorded water-power resources and the figures of available power in Table 1 may be said to represent the minimum water-power possibilities of the Dominion.

Growth of Water-Power Development.—The commencement of the long-distance transmission of electricity at the beginning of the present century resulted in the extensive development of hydro-electricity for distribution over wide areas. The growth of installation during the period from 1900 to 1938 is shown, by provinces, in Table 2.